

EXHIBIT 1

Document3

U.S. Patent No. 4,734,690: Preliminary Infringement Contentions
Activision

CLAIM 1		ACCUSED INSTRUMENTALITIES¹
1. A three-dimensional panning method comprising the steps of:		Each Accused Instrumentality listed in Ex. B-1 (Activision) performs three dimensional panning.
	storing applied graphic information representing a three-dimensional object in a first three-dimensional coordinate modeling space;	For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when executed on a computer or video game system, is operable to perform a three dimensional panning method. Each Accused Instrumentality listed in Ex. B-1 (Activision) stores applied graphic information representing a three-dimensional object in a first three-dimensional coordinate modeling space.
	defining a second three-dimensional coordinate space as a viewing space from which the object may be viewed, the viewing space being movable at a selected radial distance around a selected reference point in the modeling space;	For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when executed on a computer or video game system, stores in memory information representing three-dimensional objects in a three-dimensional coordinate system. Each Accused Instrumentality listed in Ex. B-1 (Activision) defines a second three-dimensional coordinate space as a viewing space from which an object may be viewed. The viewing space is movable at a selected radial distance around a selected reference point in the modeling space.
	inputting and storing further information including panning information specifying a position from which to view the object;	For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when executed on a computer or video game system, defines a three-dimensional viewing space from which an object in the game world may be viewed. This viewing space is moveable at a selected radial distance around a selected reference point. Each Accused Instrumentality listed in Ex. B-1 (Activision) receives and stores panning information that specifies a position from which to view an object.
		For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when executed on a computer or video game system, accepts and stores input from a keyboard, mouse, game controller, or other input device, including panning information specifying a position from which to view an object.

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CLAIM 1	ACCUSED INSTRUMENTALITIES
<p>moving the viewing space to the specified position in response to the panning information, effecting a transform of the coordinates of the object to the viewing space and to a two-dimensional coordinate screen space; and</p>	<p>Each Accused Instrumentality listed in Ex. B-1 (Activation) moves the viewing space to the specified position in response to the panning information, effecting a transform of the coordinates of the object to the viewing space and to a two-dimensional coordinate screen space.</p> <p>For example, each Accused Instrumentality listed in Ex. B-1 (Activation), when executed on a computer or video game system, moves the viewing space in response to the panning information and transforms the coordinates of an object to the viewing space and to two-dimensional screen space coordinates.</p>
<p>displaying a two-dimensional image of the transformed coordinates, providing a view of the object from the panned-to-position.</p>	<p>Each Accused Instrumentality listed in Ex. B-1 (Activation) displays a two-dimensional image of the transformed coordinates, providing a view of the object from the panned-to-position.</p> <p>For example, each Accused Instrumentality listed in Ex. B-1 (Activation), when executed on a computer or video game system, displays a two-dimensional image of an object from the panned-to position on a television, computer monitor, or other display device.</p>

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CLAIM 2

2. The method of claim 1 where the step of moving the viewing space includes the step of orienting said viewing space with respect to the object, by varying at least one of pitch, yaw, and roll attitudes of said viewing space.

ACCUSED INSTRUMENTALITIES

Each listed in Ex. B-1 (Activision) orients the viewing space with respect to the object by varying at least one of pitch, yaw, and roll attitudes of said viewing space.
For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when executed on a computer or video game system, orients the viewing space by varying at least one of pitch, yaw and roll attitudes of the viewing space.

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CLAIM 4		ACCUSED INSTRUMENTALITIES
4. The method of claim 1 where the step of inputting further information includes the step of specifying a radial distance at which the object may be viewed.	Each Accused Instrumentality listed in Ex. B-2 (Activision) receives input specifying a radial distance at which the object may be viewed. For example, each Accused Instrumentality listed in Ex. B-2 (Activision), when executed on a computer or video game system, accepts input from a keyboard, mouse, game controller or other input device to specify a radial distance at which an object in the game world may be viewed.	

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CLAIM 7		ACCUSED INSTRUMENTALITIES	
<p>7. Apparatus for performing a three-dimensional panning operation, comprising:</p> <p>memory means for storing entered information including applied graphic and panning information and a control program, the graphic information representing a three-dimensional object in a first three-dimensional coordinate modeling space;</p> <p>input means for entering information including panning information for panning to a selected position from which to view the object;</p> <p>processing means coupled to the input and memory means, and responsive to the panning information and execution of the program, for defining a second three-dimensional coordinate space as a viewing space from which the object may be observed, and for moving the viewing space, a selected radial distance around a selected reference point in the modeling space, to the selected</p>	<p>Each Accused Instrumentality listed in Ex. B-1 (Activision) performs a three dimensional panning operation.</p> <p>For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when executed on a computer or video game system, comprises an apparatus that performs a three-dimensional panning operation.</p> <p>Each Accused Instrumentality listed in Ex. B-1 (Activision), in conjunction with a computer or video game system, includes memory that stores entered information, including applied graphic and panning information and a control program. The graphic information represents a three-dimensional object in a first three-dimensional coordinate modeling space.</p> <p>For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when combined with a computer or video game system, includes memory that stores applied graphical information representing three-dimensional objects in a three-dimensional coordinate space, panning information, and an executable control program.</p> <p>Each Accused Instrumentality listed in Ex. B-1 (Activision), in conjunction with a video game system, includes input means for entering information, including panning information for panning to a selected position from which to view an object in the game world.</p> <p>For example, each Accused Instrumentality listed in Ex. B-1 (Activision), when combined with a computer or video game system, includes a keyboard, mouse, game controller or other input device for entering information including panning information for panning to a selected position from which to view an object.</p> <p>Each Accused Instrumentality listed in Ex. B-1 (Activision), in conjunction with a video game system, includes processing means coupled to the input and memory means, and responsive to the panning information and execution of the program, for defining a second three-dimensional coordinate space as a viewing space from which the object may be observed, and for moving the viewing space, a selected radial distance around a selected reference point in the modeling space, to the selected</p>		

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CLAIM 7	ACCUSED INSTRUMENTALITIES
<p>may be observed, and for moving the viewing space, a selected radial distance around a selected reference point in the modeling space, to the selected position, effecting a transform of the coordinates of the object to the viewing space and to a two-dimensional coordinate screen space; and</p>	<p>position, effecting a transform of the coordinates of the object to the viewing space and to a two-dimensional coordinate screen space.</p> <p>For example, each Accused Instrumentality, when combined with a computer or video game system, includes a microprocessor and/or graphics processor, coupled to the input and memory, that is responsive to panning information and execution of the program for defining a separate viewing space from which an object in the game world may be viewed, and for moving the viewing space a selected radial distance around a selected point in the game world to a selected position, effecting a transform of the coordinates of an object in the game world to the viewing space and then to two-dimensional screen space.</p>
<p>means for displaying a two-dimensional image of the transformed coordinates, providing a view of the object from the panned-to position.</p>	<p>Each Accused Instrumentality listed in Ex. B-1 (Activision), in conjunction with a video game system, include a means for displaying a two-dimensional image of the transformed coordinates, providing a view of the object from the panned-to position.</p> <p>For example, each Accused Instrumentality, when combined with a computer or video game system, includes a television, computer monitor or other display that provides a display of a two-dimensional image of an object from the panned-to position.</p>

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CLAIM 8	ACCUSED INSTRUMENTALITIES
<p>8. The apparatus of claim 7 wherein the processing means includes a means for orienting the viewing space with respect to the object, by varying at least one of pitch, yaw, and roll attitudes of said viewing space.</p>	<p>Each Accused Instrumentality listed in Ex. B-1 (Activation), in conjunction with a video game system, include processing means for orienting the viewing space with respect to the object, by varying at least one of pitch, yaw, and roll attitudes of said viewing space.</p> <p>For example, each Accused Instrumentality listed in Ex. B-1 (Activation), when combined with a computer or video game system, includes a microprocessor and/or graphics processor that orients the viewing space with respect to an object in the game world by varying at least one of the pitch, yaw or roll attitudes of the viewing space.</p>

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CLAIM 10		ACCUSED INSTRUMENTALITIES
10. The apparatus of claim 7 wherein the input means includes a means for specifying a radial distance at which the object may be viewed.	Each Accused Instrumentality listed in Ex. B-2 (Activision), in conjunction with a video game system, include an input means for specifying a radial distance at which an object may be viewed.	
		For example, each Accused Instrumentality listed in Ex. B-2 (Activision), when combined with a computer or video game system, includes a keyboard, mouse, game controller or other device for specifying a radial distance at which an object in the game world may be viewed.

As used herein, Activision's Accused Instrumentalities for each asserted claim include those instrumentalities listed in Exhibits B-1 (Activision) and B-2 (Activision) to this claim chart, as specified in the claim chart. The list of Activision's Accused Instrumentalities includes only the instrumentalities of which AVG is aware of at this time. AVG reserves its right to supplement and/or amend this list upon discovery of additional infringing instrumentalities. In addition, AVG's Preliminary Infringement Contentions, including this claim chart, are preliminary in nature. AVG reserves its right to supplement and/or amend these contentions, including the claim charts associated therewith, in accordance with this Court's Patent Rules.